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Instructions for Erecting
BLUE STREAK
Model 8 Linotype



1936

Mergenthaler Linotype Company
Brooklyn, New York

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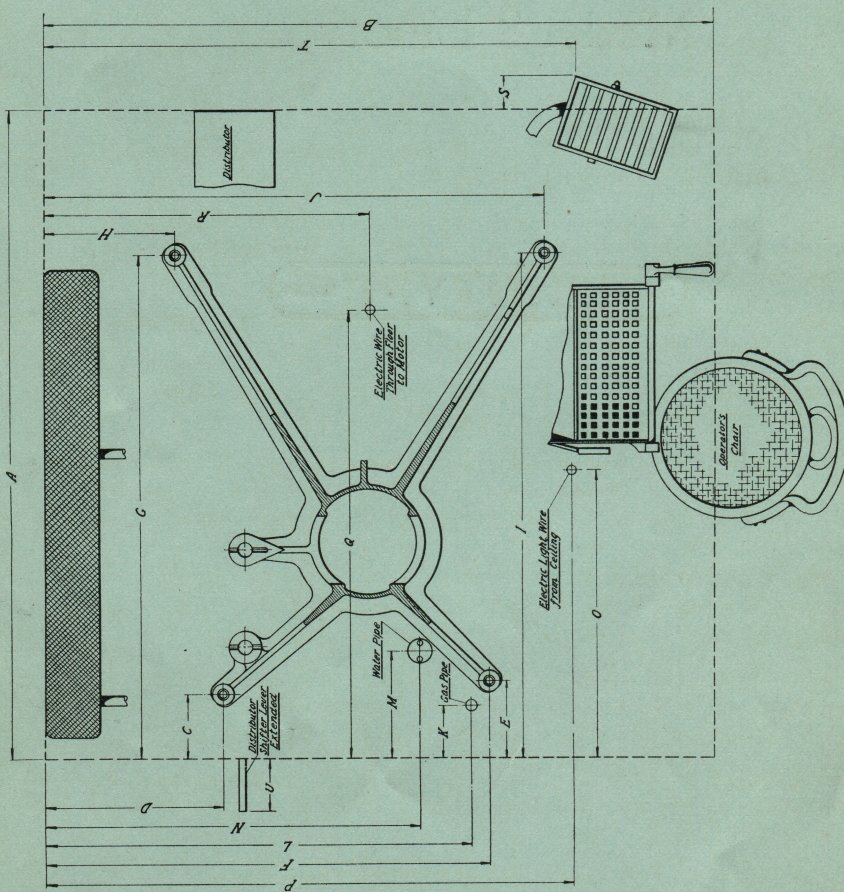


CHART OF FLOOR PLAN DIMENSIONS: A—61 inches; B—62 inches; C—6 inches; D—16 $\frac{3}{4}$ inches; E—7 inches; F—41 $\frac{1}{2}$ inches; G—47 $\frac{1}{4}$ inches; H—12 $\frac{1}{8}$ inches; I—47 $\frac{1}{4}$ inches; J—46 $\frac{7}{8}$ inches; K—5 inches; L—41 inches; M—10 inches; N—34 $\frac{1}{2}$ inches; O—27 inches; P—49 inches; Q—42 $\frac{1}{4}$ inches; R—29 $\frac{7}{8}$ inches; S—3 $\frac{1}{2}$ inches; T—49 $\frac{1}{2}$ inches; U—3 $\frac{1}{2}$ inches; Height—77 $\frac{1}{2}$ inches.

Instructions for Erecting Blue Streak

Model 8 Linotype

See that all finished surfaces are clean and free from burrs that may have been caused in handling.

1. Assemble Column to Base

Drive two $\frac{3}{8}$ " diameter dowels $1\frac{1}{8}$ " long in Column so that they project approximately $\frac{1}{8}$ " and set in position on Base. ✓

Drive dowel pins flush with surface of Column and fasten with three $\frac{3}{4}$ " diameter hexagon head screws 2" long and one $\frac{3}{4}$ " diameter hexagon head screw $2\frac{3}{4}$ " long and washer in left hand front corner. ✓

Assemble Elevator Transfer Lever Spring Hook and Delivery Lever Spring Hook to inside of Column. ✓

Assemble Vise Locking Stud (R.H.) to Column and secure by means of one $\frac{1}{2}$ " diameter slotted hexagon head screw $1\frac{3}{4}$ " long. ✓

Note: When Vise Locking Stud Washers are required, they will be in envelope with Vise Locking Stud Nut. See that they are placed properly between shoulder on Vise Locking Stud (R.H.) and column. ✓

2. Assemble Spaceband, Elevator Transfer and Delivery Levers

Assemble Spaceband Lever and Shaft into lower holes in Column, add Collar and tighten one $\frac{1}{4}$ " diameter headless set screw $\frac{1}{2}$ " long in Collar. ✓

Assemble Spaceband Operating Lever, Elevator Transfer Cam Roll Lever and Shaft, and Spring Arm into top holes in Column, add Elevator Transfer Lever on front end of Shaft and fasten with one taper dowel pin $2\frac{5}{8}$ " long. ✓

Assemble Delivery Lever Cam Roll Arm and Shaft, and Spring Hook into center holes in Column, add Delivery Lever to front end of Shaft and fasten with one taper pin $2\frac{5}{8}$ " long. ✓

Do not loosen screws in the Spaceband Operating Lever, Elevator Transfer Cam Roll Lever and Delivery Lever Cam Roll Arm, as they are properly located at factory. ✓

Assemble Delivery Lever Spring $1\frac{3}{8}$ " diameter, 17" long from hook in top of inside of Column to Delivery Lever Spring Arm and Elevator Transfer Lever Spring $1\frac{3}{8}$ " diameter $10\frac{1}{2}$ " long from hook in top of inside of Column to Elevator Transfer Lever Spring Arm. ✕

Connect Elevator Transfer Lever to Spaceband Lever by means of turnbuckle which is secured with one $\frac{3}{8}$ " diameter wing pin $1\frac{1}{8}$ " long. Fasten wing pin with one 8x32 button head screw $\frac{1}{8}$ " long. ✓

3. *Assemble Cam Shaft Brackets (R.H. and L.H.)*

Set Cam Shaft Bracket (L.H.) on Base and drive two $\frac{1}{8}$ " diameter dowels $\frac{7}{8}$ " long and fasten with two $\frac{3}{4}$ " diameter hexagon head screws $2\frac{3}{4}$ " long.

Set Cam Shaft Bracket (R.H.) on Base and drive one $\frac{1}{8}$ " diameter dowel $\frac{7}{8}$ " long in the front and one $\frac{1}{8}$ " diameter dowel $1\frac{1}{4}$ " long in the back. Fasten with one $\frac{3}{4}$ " diameter hexagon head screw $2\frac{1}{4}$ " long in the front and one $\frac{3}{4}$ " diameter hexagon head screw $2\frac{3}{4}$ " long in the back.

Assemble the Distributor Shifter Lever Spring Screw $\frac{3}{8}$ " diameter hexagon head $1\frac{1}{4}$ " long to inside of Cam Shaft Bracket (L.H.).

4. *Assemble Driving Shaft and Bearing to Base and Cam Shaft Bracket (R.H.)*

Set two $\frac{1}{4}$ " dowels $1\frac{3}{8}$ " long flush with finished surface of Driving Shaft Bearing. Insert right hand end of Driving Shaft through bearing in Cam Shaft Bracket (R.H.). Then drive dowel pins flush with bearing and fasten with two $\frac{5}{8}$ " diameter hexagon head screws $1\frac{1}{4}$ " long to Base.

5. *Assemble Automatic Stop Fork Lever to Cam Shaft Bracket*

Assemble Automatic Stop Fork Lever to Cam Shaft Bracket (R.H.) by means of $\frac{1}{8}$ " diameter fulcrum pin $3\frac{1}{8}$ " long and fasten fulcrum pin with $\frac{1}{8}$ " diameter square head set screw $\frac{1}{2}$ " long in Cam Shaft Bracket (R.H.).

6. *Assemble Starting and Stopping Mechanism*

Assemble Vertical Starting Levers and Bracket by inserting lower end in Bearing in Column and secure Vertical Starting Lever Bracket to Column by one $\frac{1}{2}$ " diameter hexagon head screw $2\frac{1}{4}$ " long.

Assemble Starting and Stopping Lever Bracket to front of Column. Drive two $\frac{1}{8}$ " diameter dowels $\frac{7}{8}$ " long, flush and fasten with two $\frac{3}{8}$ " diameter hexagon head screws 1" long.

Assemble Starting and Stopping Lever over Stud in Automatic Stop Fork Lever and secure to Starting and Stopping Lever Bracket by means of $\frac{3}{8}$ " diameter wing pin $2\frac{1}{8}$ " long, and fasten wing pin with one 8x32 button head screw $\frac{1}{8}$ " long.

7. *Assemble Ejector Blade Controller*

Assemble Ejector Blade Controller Link Lift Guide to Base. Drive two $\frac{1}{8}$ " diameter dowels $\frac{5}{8}$ " long, flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $\frac{3}{8}$ " long.

Place Ejector Blade Controller Link Lift Roll over Stud in Lift.

Assemble Ejector Blade Control Lever and Bracket to Base, setting slotted end of lever over Roll in Ejector Blade Controller Lever Link Lift. Then drive two $\frac{1}{4}$ " diameter dowel pins $1\frac{3}{8}$ " long flush and fasten to Base with two $\frac{3}{8}$ " diameter fillister head screws $1\frac{1}{8}$ " long.

8. *Assemble Justification and Vise Closing Levers*

Assemble Justification Lever, Vise Closing Lever and Justification Lever Shaft Sleeve by inserting $1\frac{1}{4}$ " diameter Justification Lever Shaft through Bearings in Cam Shaft Bracket (L.H. and R.H.) and tighten one $\frac{3}{8}$ " diameter square head set screw 1" long in the Vise Closing Lever.

9. *Assemble Justification and Vise Closing Lever Springs*

Assemble Justification Lever Spring and Vise Closing Lever Spring by inserting lower end into Pockets in Base and top ends into Pockets in Levers.

Note: Nails which are at the bottom of springs are for the purpose of holding springs intact to facilitate assembling. Nails must be kept in place until machine is fully assembled.

Assemble grease cups and tubes to Driving Shaft Bearings.

Tie Delivery Lever to right hand Keyboard banking face.

10. *Assemble Cams to Cam Shaft Brackets*

Remove locating piece from Cam Shaft, loosen set screw in Delivery and Elevator Transfer Cam, set Driving Shaft so that Clutch Arms are horizontal, or left hand arm when facing Clutch, slightly below center, and assemble Cams into Bearings. Cams are to be at normal position, that is, when Stopping Pawl is on Vertical Stop and Clutch is thrown out.

Assemble Cam Shaft Cap to Cam Shaft Bracket (R.H.), drive one $\frac{1}{4}$ " diameter dowel $\frac{7}{8}$ " long flush and fasten with two $\frac{3}{4}$ " diameter hexagon head screws $3\frac{1}{4}$ " long.

Insert Tie Rod through Cam Shaft Cap and screw into Column, bringing up by fingers only, and lock with one 14x24 button head screw $\frac{1}{2}$ " long.

Do not use wrench on Tie Rod, to avoid introducing strains.

Assemble locating piece to Cam Shaft and fasten with two 8x32 button head screws $\frac{5}{8}$ " long, and tighten set screw in Delivery and Elevator Transfer Cam.

11. *Assemble Vise Frame*

Insert Vise Frame Shaft through front Bearings of Base and Bearings of Vise Frame. See that Pot Leg Bushings are put in as marked (R.H. and L.H.) with oil holes to the front of machine. Secure Vise Frame Shaft with one $\frac{3}{8}$ " diameter headless set screw $1\frac{1}{8}$ " long into flat on Shaft.

12. *Assemble Pot*

Assemble Pot Lever to top bearing of Pot Jacket by means of Pot Lever Shaft $\frac{5}{8}$ " diameter $5\frac{1}{4}$ " long in Pot Jacket and secure with one $\frac{1}{4}$ " diameter square head set screw $\frac{1}{2}$ " long to lower lug by means of wing pin $\frac{3}{8}$ " diameter $1\frac{1}{2}$ " long and secure wing pin with one 8x32 button head screw $\frac{5}{8}$ " long in lug.

Remove the Pot Leg Caps, loosen front adjusting screws in the Pot Legs and assemble Pot to machine by placing legs over bushings and tightening front adjusting screws in Pot Legs. Assemble Pot Leg Caps to Pot Legs and fasten with two 14x24 button head shoulder screws $\frac{3}{4}$ " long, in each cap. Do not

loosen rear adjusting screws, as they are adjusted at factory and represent correct lock-up setting.

Arrange spacing washers so that roll is central with Cam.

13. *Assemble Mold Gear Arm to Cam Shaft Bracket (L.H.)*

Make sure that surface of square pinion with set screw is facing upward and cams are in position so that Automatic Stop Pawl is within 6" of Vertical Stop or normal position.

Drive one taper dowel $1\frac{1}{4}$ " long flush and fasten Mold Gear Arm to Cam Shaft Bracket (L.H.) with one $\frac{3}{4}$ " diameter hexagon head screw 4" long in front and one $\frac{3}{4}$ " diameter hexagon head screw 2" long in back.

14. *Assemble Mold Gear Arm Support*

Set Support on Base and move it up so that upper Bearing of Support touches Bearing of Mold Gear Arm.

Put two $\frac{3}{8}$ " diameter hexagon head screws $1\frac{1}{4}$ " long into Base and screw up with fingers. Put one $\frac{3}{8}$ " diameter hexagon head screw $1\frac{1}{4}$ " long through upper part of Support into Mold Gear Arm and screw up with fingers, seeing that upper and lower bearings are set square. At this time tighten all screws with wrench.

15. *Assemble First Elevator Lever and Ejector Lever*

Assemble First Elevator Lever and Ejector Lever by inserting First Elevator and Ejector Lever Shaft through lower rear bearings of Base.

16. *Assemble Second Elevator Lever, Cam Lever, Safety Pawl and Starting Spring*

Remove Second Elevator Lever Adjusting Spring, Stud and Nuts from Second Elevator Cam Lever.

Assemble Second Elevator Lever and Second Elevator Cam Lever by inserting Second Elevator Lever Shaft through upper rear bearing in Cam Shaft Bracket, secure Shaft with two $\frac{5}{16}$ " diameter set screws $\frac{3}{4}$ " long in Second Elevator Lever and assemble Second Elevator Lever Adjusting Spring, Stud and Nuts.

Assemble Second Elevator Safety Pawl to Cam Shaft Bracket (R.H.) by means of $\frac{1}{2}$ " diameter wing pin $5\frac{1}{4}$ " long. Secure wing pin with 8x32 button head screw $\frac{5}{8}$ " long and add cotter pin to wing pin.

Assemble Second Elevator Starting Spring by inserting lower end through hole in Cam Shaft Bracket (L.H.) and secure to Second Elevator Cam Lever by $\frac{5}{8}$ " diameter fillister head shoulder screw $1\frac{1}{2}$ " long.

Note: Second Elevator Lever should be down on transfer position before adding starting spring to facilitate assembling.

17. *Assemble Pot Balancing Spring and Pot Balancing Spring Base to Linotype Base*

Assemble Pot Balancing Spring and Pot Balancing Spring Base to the Base and assemble Vise Balancing Spring from Pot Balancing Spring Base to Spring Hook on Vise Frame and fasten Spring Hook with two square head set screws $\frac{1}{4}$ " diameter $\frac{1}{2}$ " long.

18. *Assemble Pot Pump Bracket with Pot Pump Lever and Mold Cam Lever to Column*

Assemble Pot Pump Bracket with Pot Pump Lever to Column and drive two taper dowels 2" long flush and fasten with one $\frac{3}{4}$ " diameter hexagon head screw $3\frac{5}{8}$ " long on top and one $\frac{3}{4}$ " diameter hexagon screw $2\frac{1}{4}$ " long on bottom.

Assemble the Pot Pump Lever Support to the Cam Shaft Bracket (L.H.) locating on two $\frac{1}{4}$ " diameter dowels $1\frac{1}{8}$ " long and fasten with two $\frac{3}{8}$ " diameter hexagon head screws 1" long. Connect the Pot Pump Lever to the Support with the Pot Pump Lever Support Shaft and secure Shaft with one $\frac{1}{4}$ " diameter headless set screw $1\frac{1}{8}$ " long.

Remove fulcrum stud from Mold Cam Lever Handle and assemble Mold Cam Lever by adding roller to stud on Mold Cam Lever and inserting roller into Mold Cam. Then insert fulcrum stud and tighten set screw.

19. *Assemble Pot Pump Lever Stop Lever Operating Lever Bracket to Pot Pump Bracket*

Assemble Pot Pump Lever Stop Lever Operating Lever Bracket to Pot Pump Bracket and put in one $\frac{3}{8}$ " diameter hexagon head screw $1\frac{1}{2}$ " long on bottom and one $\frac{3}{8}$ " diameter hexagon head screw $1\frac{1}{8}$ " long on top, bringing up with fingers only.

20. *Assemble Pot Pump Lever, Stop Lever, Operating Lever and Pot Pump Lever Spring*

Insert slotted end of Operating Lever over Stud in Pot Pump Lever Stop Lever Bracket and secure to Vise Locking Stud in Column, by means of $\frac{1}{2}$ " diameter shoulder screw $1\frac{1}{8}$ " long having $\frac{3}{8}$ x16 thread.

Turn machine until Pot Pump Lever Roll is in low spot on Cam and assemble Pot Pump Spring $1\frac{1}{8}$ " diameter 9" long to Pot Pump Lever and to Spring Hook at bottom on inside of Column.

Turn machine back to normal and adjust position of Pot Pump Lever Stop Lever Bracket vertically so that Pot Pump Lever Stop Lever clears under steel shoe of Pot Pump Lever and tighten two screws in the Pot Pump Stop Lever Bracket with wrench.

21. *Assemble Distributor Shifter Lever Hub and Spring*

Assemble Distributor Shifter Lever Hub by inserting Distributor Shifter Lever Shaft through bearings in Mold Gear Arm and secure with set screws. Hook spring 1" diameter 8" long over arm on Distributor Shifter Lever Hub and over stud on inside of Cam Shaft Bracket (L.H.).

22. *Assemble Mold Disk and Slide*

Insert Mold Disk Slide into dovetail seat on Column.
Remove Mold Disk plate and screws.

Assemble Mold Disk, Mold Disk Stud and Mold Disk Plate to Mold Disk Slide and secure with three $\frac{3}{8}$ " diameter flat head screws $2\frac{3}{4}$ " long.

Connect Ejector Blade Controller between Ejector Blade Controller Link Lift and Ejector Slide with Ejector Blade Controller Link Rod. Connect piping for water cooling, if water is to be used.

Assemble Mold Disk Guides to Mold Disk Slide and secure with one $\frac{1}{2}$ " diameter hexagon head screw $\frac{7}{8}$ " long in each guide.

Note: Adjust one Mold Disk Guide so that front face of Mold Disk just touches Mold Disk Guide and then fasten. Adjust the other guide the same way.

Apply back trimming knife to Mold Disk Slide so that back of knife is against the adjusting screws which are set at the factory and fasten with two washers and two 14x24 hexagon head screws 1" long. Final adjusting to back face of mold is to be made after molds are placed in Mold Disk.

Assemble Ejector Lever Link by inserting in Ejector Slide and hooking over wing pin in Ejector Lever.

23. *Assemble Distributor Bracket and Support*

Set two lower dowels $\frac{1}{4}$ " diameter $1\frac{3}{8}$ " long in Distributor Bracket Support so that they project about $\frac{1}{8}$ " beyond bearing face. Assemble Support to Base, drive dowels flush and fasten with two $\frac{1}{2}$ " diameter hexagon head screws $1\frac{3}{4}$ " long.

Set one $\frac{1}{2}$ " diameter dowel $2\frac{3}{8}$ " long in Distributor Bracket so that it projects $\frac{1}{8}$ " beyond finished face and assemble to Column.

Set Distributor Bracket on Distributor Bracket Support, drive dowel flush in the Column and secure Bracket to Column with three $\frac{5}{8}$ " diameter hexagon head screws $2\frac{1}{2}$ " long and one $\frac{3}{8}$ " diameter hexagon head screw $3\frac{1}{8}$ " long.

Fasten Distributor Bracket to Distributor Bracket Support with one $\frac{3}{8}$ " diameter fillister head screw $1\frac{1}{4}$ " long.

24. *Assemble Intermediate Bracket and Shaft*

Set two $\frac{3}{8}$ " diameter dowels $1\frac{1}{4}$ " long so that they project $\frac{1}{8}$ " beyond finished face.

Set left hand end of Intermediate Bracket against Column with right hand end resting on Distributor Bracket Support, drive dowels flush and fasten to Column with two $\frac{1}{2}$ " diameter hexagon head screws $1\frac{1}{2}$ " long and one $\frac{1}{2}$ " diameter slotted hexagon head screw $1\frac{3}{4}$ " long and to Distributor Bracket Support with one $\frac{3}{8}$ " diameter hexagon head screw $1\frac{1}{4}$ " long.

25. *Assemble Magazine Elevating Shaft Bracket*

Assemble Magazine Elevating Shaft Bracket and Support to back of Distributor Bracket and put in four $\frac{1}{2}$ x12 hexagon screws $1\frac{1}{2}$ " long, but do not tighten.

Note: Read instructions carefully on tag attached to Cotter Pins in Drum Detents.

Connect the Magazine Elevating Shaft Bracket Tie Rod to the bottom of the Bracket, on the upper end, and to the Magazine Elevating Shaft Bracket Tie Rod Bracket on the lower end and fasten with two $\frac{1}{2}$ " diameter wing pins $1\frac{1}{2}$ " long. Secure the wing pins with two 8x32 button head screws $\frac{1}{8}$ " long.

Drive two taper dowels $1\frac{1}{4}$ " long into the Magazine Elevating Shaft Bracket Support, making sure that the nuts are backed up enough to let the dowel go all the way in. Tighten screws in Bracket Support.

Note: Extreme care must be taken when assembling this bracket as it must be located exactly as set in factory. Do not disturb any of the adjustments on the Bracket or Tie Rod as they were properly set at the factory.

26. *Assemble Stationary Front Guide Holder Brackets (R.H. and L.H.) Magazine Locating Block Support Levers and Stationary Front Guide Holder Bracket (R.H.) Support*

Add Automatic Matrix Guard Lever (R.H.) to Shaft by means of two taper dowel pins $1\frac{1}{8}$ " long $\frac{3}{32}$ " diameter at large end and Magazine Locating Block Support Lever (R.H.) by means of one taper dowel pin $1\frac{1}{2}$ " long $\frac{3}{32}$ " diameter at large end.

Insert left hand end of Shaft into Stationary Front Guide Holder Bracket (L.H.) and add Automatic Matrix Guard Lever (L.H.) locating with taper dowel pin $1\frac{1}{8}$ " long $\frac{1}{4}$ " diameter threaded at large end.

Assemble Stationary Front Guide Holder Bracket (L.H.) to Column, locating on two $\frac{5}{8}$ " diameter dowels $1\frac{1}{4}$ " long in top and one taper dowel $1\frac{3}{4}$ " long in bottom. Drive dowels flush and fasten with two $\frac{3}{8}$ " diameter hexagon head screws $1\frac{3}{4}$ " long.

Locate Stationary Front Guide Holder Bracket (R.H.) Support on Distributor Bracket with two $\frac{1}{4}$ " diameter dowel pins $\frac{5}{8}$ " long. Drive dowels flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $\frac{3}{32}$ " long.

Place Stationary Front Guide Holder Bracket (R.H.) on right hand end of Magazine Locating Block Support Lever Shaft and locate onto Intermediate Bracket with one $\frac{5}{8}$ " diameter dowel pin $1\frac{1}{4}$ " long. Drive pins flush and fasten with two $\frac{3}{8}$ " diameter hexagon head screws $1\frac{1}{2}$ " long.

Fasten Stationary Front Guide Holder Bracket (R.H.) to Support with two $\frac{1}{4}$ " diameter fillister head screws $\frac{1}{8}$ " long.

Assemble Magazine Locating Block Shaft Collar to right hand end of Shaft by means of one taper dowel pin $1\frac{1}{8}$ " long.

See that Magazine Locating Block Support Levers operate freely.

Drive out taper pin and loosen set screw in Magazine Elevating Shaft Pawl Lever Rod Lever and shift Lever to one side. Remove from threaded end of the Magazine Elevating Shaft Stop Pawl Lever Rod one crowned lock nut, one $\frac{1}{4}$ " hexagon nut $\frac{3}{2}$ " thick, one Spring Sleeve, one Spring and one Spring Shoe. Insert the threaded end of the Magazine Elevating Shaft Pawl Lever Rod through hole in the top of the Elevating Bracket, making sure that one Spring Shoe is against the adjusting nuts with the radius toward the Elevating Bracket. Replace the Rod Lever to its original position at the same time entering the Rod into the two slots in the lever. Restore the one dowel and set screw.

Attach the front end of the Rod to Lever with one $\frac{1}{4}$ " diameter shoulder pin $\frac{3}{8}$ " long and secure pin with one $\frac{1}{8}$ " cotter pin $\frac{3}{8}$ " long. Restore Spring Shoe, Spring, Spring Sleeve, Adjusting Nut and Lock Nut. Nuts must be put on loose enough to allow the Spring to function.

27. *Assemble Channel Entrance Brackets (R.H. and L.H.)*

Set four $\frac{1}{8}$ " diameter dowels $\frac{7}{8}$ " long so that they project $\frac{1}{8}$ " from finished surface and assemble to Distributor Bracket. Drive dowels flush and fasten with two $\frac{3}{8}$ " diameter fillister head screws $1\frac{1}{8}$ " long and one $\frac{3}{8}$ " diameter fillister head screw $\frac{3}{4}$ " long in each bracket.

28. *Assemble Magazine Locating Block Supports (R.H. and L.H.)*

Remove one screw and loosen other screw in Magazine Locating Block Support Connecting Bar Gibs and assemble Magazine Locating Block Supports (R.H. and L.H.) to Channel Entrance Brackets. Fasten each Gib with two 8x32 flat head screws $\frac{3}{8}$ " long.

Attach Magazine Locating Block Support Springs onto Magazine Locating Block Support (R.H. and L.H.) and to Channel Entrance Brackets (R.H. and L.H.)

29. *Assemble Magazine Elevating Shaft Crank Shaft Bracket and Shaft*

Assemble Magazine Elevating Shaft Crank Shaft Bracket and Shaft to Intermediate Bracket. Insert universal joints, locate bracket on dowels and fasten with one $\frac{1}{2}$ " diameter hexagon head screw $1\frac{1}{2}$ " long.

Remove Magazine Elevating Shaft Crank Shaft Nut and assemble springs and detents in holes in detent housing. Assemble Magazine Elevating Shaft Crank Facing and place Magazine Elevating Shaft Crank in slot in facing with handle down and replace the Magazine Elevating Shaft Crank Shaft Nut.

30. *Assemble Magazine Frames*

Remove Lever from right hand of Magazine Frame (Lower) Shaft. Assemble Shaft through Magazine Frame (Lower) and replace Lever on right hand end. (Projection on Lever should be toward rear of machine).

Remove Cotter Pins and Tags from Drum Detents and wind springs sufficient to raise Elevating Shaft in position to receive Magazine Frame (Lower).

Assemble Magazine Frame (Lower) to Magazine Locating Block Supports. Fasten Elevating Shaft to Magazine Frame (Lower) with four $\frac{3}{8}$ " diameter fillister head shoulder screws $1\frac{1}{8}$ " long.

Remove right hand Magazine Frame Guide Gib. Assemble Intermediate and Upper Magazine Frames by inserting locating pins into slots of Magazine Frame Guides (R.H. and L.H.). Replace Magazine Frame Guide Gib (R.H.), and fasten with two 8x32 flat head screws $\frac{1}{8}$ " long.

Assemble Magazine (Upper) Locking Latches (R.H. and L.H.) to Magazine Frame (Upper) locating on dowel pins and fasten with two 8x32 flat head screws $\frac{3}{8}$ " long in each Latch.

Assemble Magazine Frame Elevating Links (Long and Short) (R.H. and L.H.) and secure to Magazine Frames with one $\frac{1}{8}$ " diameter stud $1\frac{3}{8}$ " long in upper position, one $\frac{1}{8}$ " diameter stud $1\frac{1}{8}$ " long in intermediate position and one $\frac{1}{8}$ " diameter stud $\frac{7}{8}$ " long in lower position on each side and secure studs with set screws. (Projection on short links should be toward rear of machine).

31. *Assemble Keyboard Rod Frame*

Assemble Keyboard Rod Frame Bracket (L.H.) (Lower) to Intermediate Bracket, drive dowels in bracket and fasten with two $\frac{1}{4}$ " diameter fillister head screws $\frac{5}{8}$ " long.

Remove Assembler Drive Belt Pulley. Assemble Keyboard Rod Frame Bracket (R.H.) (Upper) to Keyboard Rod Frame. Drive dowel and fasten with one Face Plate Frame Cover Stud.

Assemble Keyboard Rod Frame with upper right hand lug resting on lower side of slot in Stationary Front Guide Holder Bracket (R.H.) and on left hand lower dowel in Keyboard Rod Frame Bracket. Fasten to Stationary Front Guide Holder Bracket with one $\frac{1}{8}$ " diameter fillister head screw $\frac{3}{4}$ " long and to lower bracket with one $\frac{1}{4}$ " diameter fillister head screw $\frac{5}{8}$ " long. Replace Assembler Driving Belt Pulley and secure with set screw.

Assemble Keyboard Rod Frame Bracket (Upper) (L.H.) to Stationary Front Guide Holder Bracket (L.H.). Drive dowels flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $1\frac{1}{8}$ " long.

Secure Keyboard Rod Frame to upper left hand Bracket with two $\frac{1}{4}$ " diameter fillister head screws $\frac{5}{8}$ " long and to lower part of Stationary Front Guide Holder Bracket (R.H.) with one $\frac{1}{4}$ " diameter fillister head screw $\frac{5}{8}$ " long.

32. *Assemble Escapement Lever Bar Support, Levers and Guides and Automatic Matrix Guard*

Set dowels in Escapement Lever Bar Support so they project $\frac{1}{8}$ " beyond finished face. Set in position on Stationary Front Guide Holder Brackets (R.H. and L.H.), drive dowels flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $1\frac{1}{8}$ " long.

Place Escapement Lever Guide (Upper) under shoulder screw in left hand Stationary Front Guide Holder Bracket, place Escapement Levers in their respective slots and secure Guide to the Stationary Front Guide Holder Brackets (R.H. and L.H.) with shoulder screws.

Assemble Automatic Guard Strip and Automatic Matrix Guard by inserting into Automatic Matrix Guard Bar Brackets (R.H. and L.H.) and connect to Automatic Matrix Guard Levers (R.H. and L.H.) by means of two 8x32 slotted headless studs $\frac{5}{8}$ " long.

33. *Assemble Escapements and Magazines*

Set Escapements on Magazine Frames locating on dowel pins and fasten upper with two Escapement Screws and the intermediate and lower with two Magazine Frame Adjustable Banking Studs in each.

INSTRUCTIONS FOR ERECTING BLUE STREAK MODEL 8 LINOTYPE

Note: Check the space between Magazine Frames with gage furnished with each machine.

Assemble Magazine Supporting Arm Bracket to Distributor Bracket and fasten with one square head set screw $\frac{1}{4}$ " diameter $\frac{1}{2}$ " long.

Place Magazine Supporting Arms on sides of Magazine Frames and separate frames to receive magazines.

Assemble Magazine onto center piece and lower into position on Escapements. Remove Magazine Frame Supporting Arms and hang on Arm Brackets.

Line up Escapement Levers with Escapement Plungers and see that the Levers operate freely, then tighten screws in Escapement Lever Guide (Upper).

34. Assemble Keyboard

Set Keyboard on Base and fasten with one Keyboard Pivot Screw and lock pivot screw with set screw on right hand side of Keyboard Frame.

See that brass plug $\frac{5}{8}$ " diameter $\frac{1}{4}$ " long is in front of set screw so as to protect threads on pivot screw.

Drive (L.H.) Locking Bolt into hole in Base. (Bolt is $7\frac{1}{2}$ " long, knurled on handle). Lock Keyboard by fastening with (L.H.) Locking Bolt.

Assemble Keyboard Stop to left hand side of Keyboard Frame, drive dowel flush and fasten with one $\frac{1}{4}$ " diameter fillister head screw $\frac{3}{4}$ " long.

35. Assemble Face Plate Mechanism

Locate Face Plate on Column and Intermediate Bracket by means of dowel pins in Face Plate. Fasten to Column with one $\frac{5}{8}$ " diameter hexagon head screw 3" long and one $\frac{3}{8}$ " diameter hexagon head screw $2\frac{3}{8}$ " long in lower left hand side of Face Plate.

Assemble Copyholder Support Bracket on one $\frac{5}{8}$ " diameter hexagon head screw $2\frac{1}{2}$ " long and fasten right hand end of Face Plate to Intermediate Bracket with screw.

Assemble Spaceband Key Lever and Bracket to Face Plate and fasten with one $\frac{3}{8}$ " diameter hexagon head screw 1" long. Insert left hand end of Spaceband Key Lever into slot of Spaceband Box Pawl Lever and secure right hand end of Spaceband Key Lever to Spaceband Key Rod, by means of Spaceband Lever Key Rod Pin which is bent to prevent working out.

Remove Assembler Slide Stop from Face Plate Frame and assemble Face Plate Frame Cover. Replace Stop and fasten with two 8x32 button head screws $\frac{5}{8}$ " long. Fasten top of Cover with two 8x32 button head screws $\frac{5}{8}$ " long.

Assemble Quad Box to Intermediate Channel Plate (Front) with two $\frac{1}{4}$ " diameter fillister head screws $1\frac{1}{8}$ " long.

Assemble Electric Light Holder and Insulator to Intermediate Channel Plate (Front) with two fiber washers and two 8x32 button head screws $\frac{1}{2}$ " long.

Assemble Spaceband Buffer to Assembler Slide Roll Bracket by means of one 8x32 fillister head shoulder screw $\frac{5}{8}$ " long.

36. *Assemble Elevator Transfer Slide*

Remove stop screw from left hand side of Face Plate Frame. Assemble Elevator Transfer Slide Finger to Transfer Slide by means of two 4x48 flat head screws $\frac{1}{4}$ " long. Insert Elevator Transfer Slide and Finger. Replace stop screw and connect Elevator Transfer Link to Elevator Transfer Lever by means of $\frac{3}{8}$ " diameter ball head hinge pin 1" long and fasten hinge pin with one 4x48 button head screw $\frac{1}{4}$ " long.

Remove one 8x32 button head screw $\frac{3}{8}$ " long from top of Delivery Lever, loosen the other screw, swing Delivery Lever Plate out, insert Stud (which is on Delivery Lever Link) into slot in Delivery Lever, replace Plate and tighten the screws.

37. *Assemble Assembler Entrance Plate, Stationary Front Guide Holder, Assembling Guides, Assembler Entrance Cover and Assembler Chute Finger*

Locate on dowel pins in Stationary Front Guide Holder Bracket (R.H. and L.H.). Adjust sideways so that the left hand side of Guides line with right hand side of Magazine Channels and fasten Stationary Front Guide Holder to Bracket with three 14x24 button head screws $\frac{5}{8}$ " long.

Fasten Assembler Entrance Plate to Face Plate with one button head screw $\frac{1}{4}$ " diameter $\frac{5}{8}$ " long and one fillister head screw $\frac{1}{4}$ " diameter $\frac{5}{8}$ " long.

Assemble Assembler Chute Finger and Spring to Assembler Entrance Plate with one 6x48 fillister head shoulder screw 1" long. (Chute Finger should be in upper position).

Add Assembler Entrance Cover Support and fasten to Stationary Front Guide Holder by means of washer and one $\frac{3}{8}$ " diameter fillister head shoulder screw $1\frac{1}{8}$ " long.

Assemble the Assembler Slide Release Extension Finger to the Keyboard Rod Long Cover and fasten with one 8x32 fillister head shoulder screw $1\frac{1}{8}$ " long. Secure screw with one 8x32 hexagon nut $\frac{5}{8}$ " thick.

Connect the Assembler Slide Spring to the end of Assembler Slide with one Assembler Slide Spring Stud. Adjust tension on Assembler Slide Spring by pulling out and turning the knob on the Assembler Slide Spring Drum Cover.

38. *Assemble First Elevator Slide, Galley Brackets and Slug Adjuster*

Assemble First Elevator Slide to Vise Frame by adding right hand Gibs and Knife Wiper Operating Lever and Rod. Adjust and fasten upper right hand Gib with one $\frac{5}{8}$ " diameter fillister head screw $\frac{7}{8}$ " long. Locate lower right hand Gib on Vise Frame by means of dowel.

Connect First Elevator Slide Link to First Elevator Slide Lever by means of wing pin $\frac{3}{8}$ " diameter $1\frac{1}{4}$ " long and fasten wing pin with set screw in Lever.

Assemble Galley Bracket (R.H.) to lower right hand Gib and to Vise Frame and fasten with one $\frac{1}{8}$ " diameter fillister head screw $1\frac{1}{4}$ " long. Fasten upper end of Galley Bracket (R.H.) to Vise Frame with one 14x24 button head screw $\frac{3}{4}$ " long.

Assemble Galley Bracket (L.H.) to Vise Frame and fasten upper end with one 14x24 button head screw $\frac{3}{4}$ " long and lower end with one $\frac{1}{8}$ " diameter fillister head screw $1\frac{1}{4}$ " long in (L.H.) Lower Gib.

Assemble Galley Slug Adjuster to Vise Cap with one 8x32 button head screw $\frac{3}{8}$ " long.

39. *Assemble First Elevator Cam and First Elevator Auxiliary Lever*

Locate Cam on Cam Shaft by means of Key and tighten set screw.

Assemble First Elevator Auxiliary Lever on First Elevator Lever Shaft. Bring Lug on First Elevator Lever into contact with adjusting screw in First Elevator Auxiliary Lever (which controls alignment between First Elevator Jaw and Delivery Channel) and fasten with washer and one $\frac{5}{8}$ " diameter hexagon head screw $\frac{7}{8}$ " long.

It should not be necessary to disturb setting of adjusting screw in Auxiliary Lever.

40. *Assemble Slug Lever and Vise Automatic Stop Rod*

Insert Slug Lever into Vise Frame and secure with one fillister head pilot screw.

Assemble Slug Lever Operating Arm Shaft Bracket to left hand side of Vise Frame locating on two $\frac{1}{8}$ " dowels $\frac{1}{2}$ " long and fasten with two $\frac{1}{4}$ x24 fillister head screws $\frac{5}{8}$ " long.

Connect Slug Lever Link to back of Slug Lever and fasten with one 8x32 shoulder screw .245" diameter $\frac{3}{16}$ " long. Assemble Slug Lever Adjusting Screw to right hand side of Vise. Adjust screw to allow slug lever to push slugs over far enough to clear the next slug coming down. Secure screw with nut.

Insert upper end of Vise Automatic Stop Rod into hole in Vise Cap and lower end between studs in Vise Frame.

Remove one stud, assemble spring to groove in studs, tighten stud and attach lower end of spring to projection on Vise Automatic Stop Rod.

41. *Assemble Assembling Elevator Lever and Shaft*

Insert Assembling Elevator Lever Shaft through bearings in front of Keyboard Frame.

Assemble Lever to Shaft and drive in dowel. Attach spring $\frac{1}{2}$ " diameter $6\frac{3}{4}$ " long from Assembling Elevator Handle to hook on Keyboard Frame.

Assemble Link to Assembling Elevator by means of 8x32 button head screw $\frac{3}{8}$ " long.

Connect Assembling Elevator Lever to Link on Assembling Elevator by inserting pin under snap spring.

Assemble Vise Locking Screws (R.H. and L.H.) to Vise Cap.

42. Assemble Distributor, Distributor Box and Step

Assemble Step to Base. If necessary, remove left hand side bolt and then replace after step is in position.

Set Distributor on Distributor Bracket, locating on two adjusting screws in Beam (provided to control space between lower part of Matrix and upper part of Channel Entrance Partitions) and set against stop screw on right hand end of Distributor Beam (which controls side location). Then fasten with two $\frac{5}{8}$ " diameter hexagon head screws $3\frac{1}{8}$ " long.

Note: Do not disturb adjusting screws, as they are set properly at the factory.

Assemble Distributor Clutch Lever onto Distributor Clutch Lever Hinge Pin and secure with headless set screw. See that Lever is free and falls of its own weight.

Assemble Distributor Box and tighten screw.

43. Assemble Channel Entrances

Assemble Channel Entrance to Channel Entrance Brackets with $\frac{3}{8}$ " diameter shoulder hinge pins $\frac{7}{8}$ " long and fasten hinge pins with headless set screws.

Add 8x32 Spring Hook to left hand side of Distributor Bracket and attach Channel Entrance Frame Spring $\frac{3}{8}$ " diameter $4\frac{1}{2}$ " long to Channel Entrance Frame and to Hook.

44. Assemble Distributor Box Font Distinguisher

Assemble Distributor Box Font Distinguisher Indicator Bracket to Magazine Frame (Lower), drive dowels flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $\frac{3}{4}$ " long.

Assemble Distributor Box Font Distinguisher Lever and Bracket to Channel Entrance Bracket (L.H.), drive dowels flush and fasten with two $\frac{1}{4}$ " diameter fillister head screws $\frac{3}{4}$ " long.

Assemble Distributor Screw Guard Lever to Channel Entrance Bracket (R.H.) by means of one $\frac{5}{8}$ " diameter fillister head shoulder screw $\frac{3}{4}$ " long.

45. Assemble Second Elevator

Assemble Second Elevator to upper end of Second Elevator Lever by means of one $\frac{1}{4}$ " diameter fulcrum pin $2\frac{1}{8}$ " long, insert cotter pin in each end of fulcrum pin and attach $\frac{3}{8}$ " diameter spring 5" long from hook in Second Elevator Link to button head screw in Second Elevator Lever.

Adjust Second Elevator Adjusting Spring so that the Roll leaves Second Elevator Cam when Second Elevator is down on Intermediate Channel Plates and is under compression with bolt loose, when Second Elevator is in upper position.

46. Assemble Driving Pulley and Clutch

Remove Driving Shaft Friction Clutch and Key and place Driving Pulley and Guard on Driving Shaft.

Assemble Driving Shaft Friction Clutch and Key onto Driving Shaft so that it rests against the shoulder on Driving Shaft and tighten binding screw.

Secure Driving Shaft Friction Link Collar to Driving Shaft Clutch Rod by means of one $\frac{1}{4}$ " diameter fillister head screw 1" long.

47. *Assemble Motor and Gear Guard*

Remove two hexagon head screws from Cam Shaft Bracket (R.H.) Cap. Place Motor so that holes in Bracket align with screw holes in Cap and replace the two hexagon head screws, but do not tighten.

Adjust motor by means of screw bushings so that the pinion is properly meshed with gear and lower lugs are against Cam Shaft Bracket, then tighten screws.

Fasten lower left hand lug of motor to Cam Shaft Bracket with washer and one $\frac{1}{2}$ " diameter hexagon head screw $1\frac{1}{2}$ " long.

Add Gear Guard to motor by means of two $\frac{1}{4}$ " diameter button head screws $\frac{1}{2}$ " long.

Add Gear Guard Support between lower part of Gear Guard and lower right hand lug of motor and fasten to Gear Guard by means of one $\frac{3}{8}$ " diameter hexagon head screw 1" long.

Fasten other end of Support together with right hand lug of motor to Cam Shaft Bracket by means of washer and one $\frac{1}{2}$ " diameter hexagon head screw $2\frac{1}{4}$ " long.

48. *Assemble Matrix Tray, Pi Chute, Tube and Stacker and Copyholder*

Assemble Matrix Tray Brackets to Channel Entrance Brackets (R.H. and L.H.), drive dowels flush and fasten with two $\frac{1}{2}$ " diameter fillister head screws $\frac{1}{8}$ " long in each bracket.

Assemble Matrix Tray to Matrix Tray Brackets and fasten with two 8x32 button head screws $\frac{1}{4}$ " long in each bracket.

Assemble Pi Chute to Channel Entrance Frame and fasten with two 8x32 button head screws $\frac{1}{4}$ " long.

Assemble Pi Stacker Tube to Distributor Bracket by means of Pi Stacker Tube Clip (Upper), and fasten with one 8x32 button head screw $\frac{1}{4}$ " long and to Intermediate Pi Tube Clip which is fastened to Distributor Bracket by means of two 8x32 button head screws $\frac{1}{4}$ " long.

Assemble Pi Stacker Bracket to Stationary Front Guide Holder Bracket (R.H.) and fasten with two $\frac{1}{4}$ " diameter hexagon head screws $\frac{3}{4}$ " long.

Assemble Sorts Box Bracket to Pi Stacker Bracket and fasten with two $\frac{3}{8}$ " diameter fillister head screws $\frac{1}{2}$ " long and add Sorts Box.

49. *Assemble Vise Jaw (L.H.) Wedge Bracket and Galley*

Remove Vise Locking Screw (L.H.), Stop Screw and remove handle from Vise Jaw (L.H.) Adjusting Bar and insert Vise Jaw (L.H.) Adjusting Bar into Vise Cap.

Assemble Vise Jaw (L.H.) Wedge Bracket to Vise Cap and to upper part of Vise Frame. Locate on dowel pins and fasten with one $\frac{3}{8}$ " diameter hexagon slotted head screw 1" long and three $\frac{3}{8}$ " diameter hexagon head screws 1" long. Slotted head screw is used in lower left hand position.

Replace Vise Locking Stud (L.H.) and add Vise Locking Stud Stop Screws in Vise Cap.

Replace Handle in Vise Jaw (L.H.) Adjusting Bar.

Connect lower end of Vise Jaw (L.H.) Wedge to Vise Closing Lever by means of $\frac{1}{4}$ " diameter wing pin $1\frac{1}{4}$ " long and secure wing pin to Lever with 8x32 button head screw $\frac{5}{8}$ " long.

Attach upper end of spring $\frac{7}{8}$ " diameter $9\frac{1}{2}$ " long to lower left hand screw in Vise Jaw (L.H.) Wedge Bracket, when facing left hand side of machine and attach lower end of spring to projection at lower end of Wedge.

Assemble Galley to Galley Brackets by locating over dowel pin in left hand Bracket.

50. *Assemble Delivery Air Cushion Cylinder to Column*

Assemble Delivery Air Cushion Cylinder to Column and fasten with two washers and two $\frac{3}{8}$ " diameter hexagon head screws $\frac{3}{4}$ " long.

Connect Link to Delivery Lever Cam Roll Arm by means of $\frac{5}{8}$ " diameter fillister head pilot screw $\frac{3}{4}$ " long.

51. *Assemble Knife Block and Knife Wiper*

Assemble Knife Block onto Vise Frame, locating on dowels and fasten with two $\frac{1}{2}$ " diameter slotted hexagon head screws 2" long.

Insert lower end of Knife Wiper into Lever, adjust spring and add cotter pin to guide on Vise Frame.

52. *Assemble Auxiliary Line Safety Rod into Slot in First Elevator Jaw Back Guard*

Assemble Auxiliary Line Safety Rod into slot in First Elevator Jaw (Back) Guard, attach spring $\frac{1}{4}$ " diameter $\frac{3}{4}$ " long to pin in rod and pin in slot of Back Guard.

Assemble First Elevator Slide Filling Piece to Vise Cap with two 8x32 fillister head screws $\frac{3}{8}$ " long.

53. *Assemble Distributor Shifter Lever and Slide*

Assemble Distributor Shifter Lever to Distributor Shifter Lever Hub and fasten with two $\frac{3}{8}$ " diameter fillister head screws $\frac{5}{8}$ " long.

Remove Stop Screw from Distributing Shifter Slide Guide. Insert Distributor Shifter Slide and replace stop screw. Connect Distributor Shifter

Lever Link by means of one 8x32 fillister head shoulder screw $\frac{1}{2}$ " long and lock nut on Distributor Shifter Lever and one 8x32 headless stud $\frac{3}{4}$ " long and lock nut on Distributor Shifter Slide.

INSTRUCTIONS FOR ERECTING BLUE STREAK MODEL 8 LINOTYPE

Assemble Distributor Shifter Slide Latch to Distributor Beam and fasten with one 8x32 fillister head shoulder screw $\frac{1}{8}$ " long.

54. *Assemble Ejector Blade Scale Bar*

Insert Ejector Blade Scale Bar into Slot in Delivery Channel Plate (Back) and attach to Ejector Blade Controller Lever by means of one 10x32 fillister head shoulder screw $\frac{1}{2}$ " long.

55. *Assemble Mold Turning Gear Cover, Pot Pump Plunger, Tumbling Bar, Distributor Shifter Lever Spring and Magazine Frame Elevating Handle Guard*

Assemble Mold Turning Gear Cover to Mold Gear Arm and fasten with one 14x24 button head screw $\frac{3}{4}$ " long.

Add Pot Pump Plunger.

Assemble Intermediate Channel Quad Tumbling Bar to Intermediate Channel (Back) Plate by means of two 4x48 flat head screws $\frac{1}{8}$ " long.

Add Distributor Shifter Lever Spring from projection on Lever on Screw on Cam Shaft Bracket (L.H.)

Assemble Magazine Frame Elevating Handle Guard to Distributor Bracket and secure with two $\frac{1}{4}$ " diameter button head screws $\frac{3}{4}$ " long.

56. *Hook Up Electrical Connections*

Hook up electrical connections on Pot Heaters, Electric Light and Motor or hook up Gas connections, if gas heated.

Fill Pot with metal and start heating.

57. *Test Transfer Alignment*

Test Transfer Alignment in upper position with Second Elevator on top of Intermediate Channel Plates and First Elevator Jaw in transfer position.

58. *Remove Nails and Assemble Distributor Driving Pulley and Pi Stacker Driving Pulley*

Remove nails and tags from Justification Springs and add two copy hooks to Keyboard Frame.

Add Pi Stacker Driving Pulley and Distributor Driving Pulley and tighten set screw.

Assemble all belts.

59. *Clean Molds*

Clean Molds thoroughly, and place in Mold Disk. Add Headletter Safety Blocks and test lock-up.

60. *Run Mats*

Run mats through Distributor. Before doing so, see that all parts of Distributor are thoroughly cleaned and clean Magazine Channels with brush, Part No. I-158.

61. *Test Assembler, Keyboard and Assembling Guides*

Test Assembler, Keyboard and position of Assembling Guides by assembling mats and spacebands and circulating through machine.

62. *Assemble Mold Wiper (Back)*

Assemble Mold Wiper (Back) to (L.H.) Front Lug on Column by unscrewing the $\frac{3}{4}$ " diameter hexagon head screw $2\frac{3}{4}$ " long in Column and sliding Wiper under washer.

Adjust face of wiper so that it rests squarely against the back of Mold Disk and compressed $\frac{1}{8}$ " when the Mold Slide Lever is in operating position and Mold Slide fully back. Then tighten screw in Column.

Assemble Grease Cup to Intermediate Bracket.

Add Metal Pan to left hand side of Base.

63. *Cast Slugs*

Cast slugs, test and make final setting of side and back knives, measuring slug for body and height. Cast in more than one position to make sure of side knife setting.

